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John D. Mehr

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EXAMINER

BIAGINI, CHRISTOPHER D

ART UNIT

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2445

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--|------------------------------------|--|
| Office Action Summary | Application No. 10/790,574 | Applicant(s) MEHR ET AL. | |
| | Examiner CHRISTOPHER BIAGINI | Art Unit 2445 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-7,9,12-18,42,43,46 and 47 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-7,9,12-18,42,43,46 and 47 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>11/3/2010</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

This communication is responsive to the Request for Continued Examination (RCE) filed April 8, 2010.

Note: This application has been reassigned to a new Examiner. Contact information is located at the end of this Action. Due to the nature of the issues associated with this application, the Examiner would welcome a telephonic or personal interview. Applicant is encouraged to contact the Examiner by telephone to arrange a mutually convenient time to conduct the interview.

Response to Arguments

Applicant's arguments with respect to the rejections under 35 USC 103(a) have been fully considered and are persuasive in light of the amendments. Accordingly, the rejections are withdrawn. However, upon further consideration, new grounds of rejection are made.

With respect to the particular argument that Kirsch does not teach "identifying a frequency of consecutiveness of repeating characters within a subject line of the message to classify the message as spam or not spam" (see top of p. 16), the Examiner respectfully disagrees. Kirsch teaches evaluating a spam filtering rule that identifies "whether there are two consecutive spaces in the subject line" (see [0021]). Evaluating this rule inherently requires determining the frequency of consecutiveness of spaces, because the system must determine whether the frequency is equal to two or not equal to two.

Claim Objections

Claim 43 objected to because of the following informalities: the limitation “examining the consecutiveness of repeating characters” lacks antecedent basis in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-7, 9, 12-17, and 47 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Independent claim 1 is directed to a “system” comprising a “computer readable storage medium,” which in turn comprises “components.” Giving these terms their broadest reasonable interpretation consistent with the specification, the claim encompasses embodiments where the “storage medium” is a transitory medium (such as an electromagnetic carrier wave) and the “components” are information embedded in medium (such as by being encoded into the carrier wave). Transitory media such as electromagnetic carrier waves are not a process, machine, manufacture, or composition of matter within the meaning of 35 USC 101. The Examiner recommends amending the claim to recite a "non-transitory computer-readable storage medium."

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Claims 2-7, 9, and 12-17, which depend from claim 1, are rejected under the same rationale as presented above because none of the additionally recited limitations limit their respective claims to statutory embodiments.

Independent claim 47 is directed to "One or more computer-readable media having computer-executable instructions embodied thereon." Under a similar analysis to that presented above in connection with claim 1, the claim encompasses non-statutory transitory media. The Examiner recommends amending the claim to recite a "non-transitory computer-readable storage medium."

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-7, 9, 12-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The following claim elements are limitations that invoke 35 U.S.C. 112, sixth paragraph:

- "a component that receives...and extracts" in claim 1;
- "an analysis component" in claim 1; and
- "a machine learning system component" in claim 18.

However, the written description fails to clearly link or associate the disclosed structure, material, or acts to the claimed functions such that one of ordinary skill in the art would recognize what structure, material, or acts perform the claimed function. For example, the written description does not clearly tie a particular arrangement of circuitry, or a particular algorithm running on a general-purpose processor, to the "components" highlighted above.

Applicant may:

- (a) Amend the claims so that the claim limitations will no longer be interpreted as limitations under 35 U.S.C. 112, sixth paragraph; or
- (b) Amend the written description of the specification such that it clearly links or associates the corresponding structure, material, or acts to the claimed functions without introducing any new matter (35 U.S.C. 132(a)); or
- (c) State on the record where the corresponding structure, material, or acts are set forth in the written description of the specification and linked or associated to the claimed functions. For more information, see 37 CFR 1.75(d) and MPEP §§ 608.01(o) and 2181.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, 6, 7, 12-14, 16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirsch (US Pub. No. 2005/0102366) in view of SpamAssassin (“SpamAssassin – Tests Performed,” a copy of which is provided herewith), and further in view of Freed (RFC 2046, a copy of which was provided with the IDS filed 3 Nov. 2010).

Regarding claim 1, Kirsch shows a system that facilitates extracting data in connection with spam processing (see Figs. 1a-1b and [0017]-[0018]), comprising:

- a computer readable storage medium (at least implicitly disclosed as a necessary component of a computer-implemented system) comprising:
 - a component that receives a message and extracts a set of features associated with some part, content, or content type of a message (e.g., the component which extracts features of the title and body: see [0021]); and
 - an analysis component that examines consecutiveness of characters within the subject line of the message (e.g., the component which determines "whether there are two consecutive spaces in the subject line": see [0021]) for spam in connection with building a filter (e.g., an “adaptive ruleset” for filtering spam: see [0021]-[0022]).

Kirsch does not show examining a content type of the message, the content-type being case-sensitive.

SpamAssassin shows examining a content type of a message in connection with spam filtering, the content-type being case-sensitive (see p. 7, describing a rule which assigns a spam score when the “Content type is ‘TEXT/HTML’ in all caps”).

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It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Kirsch with the case-sensitive content-type header analysis taught by SpamAssassin in order to improve the likelihood of unwanted bulk email being filtered by the system.

The combination of Kirsch in view of SpamAssassin does not *explicitly* show that the content type describes a type of data contained within a body of the message, the content type comprising a primary content-type, a secondary content-type, or a combination thereof, the primary content-type and the secondary-content type comprising at least one of a text, a multipart, a message, an image, an audio, a video, or an application.

Freed shows a content-type describing a type of data contained within a body of the message comprising a primary content-type, a secondary content-type, or a combination thereof, the primary content-type and the secondary-content type comprising at least one of a text, a multipart, a message, an image, an audio, a video, or an application (see discussion at pp. 3-4 as printed regarding a "Top-Level Media Type," and discussion at p. 15 as printed regarding "Composite Media Type Values").

It would have been obvious to one of ordinary skill in the art at the type of the invention to modify the system of Kirsch in view of SpamAssassin with the content-type functionality taught by Freed in order to allow the system to examine messages intended for MIME-compatible email clients.

Regarding claim 2, the combination shows the limitations of claim 1 as applied above, and further shows the analysis component determines frequency of consecutive repeating characters within the subject line of the message (see Kirsch, [0021]).

Regarding claim 4, the combination shows the limitations of claim 1 as applied above, and further shows the analysis component determines the frequency of white space characters within the subject line of the message (see Kirsch, [0021]).

Regarding claim 6, the combination shows the limitations of claim 1, and further shows the analysis component determines a maximum number of consecutive, repeating characters and stores this information (e.g., determining that the maximum number of permissible consecutive spaces is two, and storing it as a rule, such as during a software update: see Kirsch, [0021]).

Regarding claim 7, the combination shows the limitations of claim 1, and further shows whereby messages can be sorted by their respective individual count of consecutive repeating characters (see Kirsch, [0033]), but does not explicitly show establishing ranges of consecutive, repeating characters, the ranges corresponding to varying degrees of spamminess.

SpamAssassin shows establishing ranges of character frequencies, the ranges correspond to various degrees of spamminess (see rules spanning pp. 9-10, describing ranges of frequency of HTML-encoded characters, each with different spam weights).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Kirsch in view of SpamAssassin and Freed with the ranges taught by

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SpamAssassin in order to improve the likelihood of unwanted bulk email being filtered by the system.

Regarding claim 12, the combination shows the limitations of claim 1 as applied above, but does not explicitly show the analysis component further determines time stamps associated with the message.

SpamAssassin shows determining time stamps associated with a message (see DATE_IN_PAST_ rules on p. 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Kirsch in view of SpamAssassin and Freed with the timestamp analysis taught by SpamAssassin in order to improve the likelihood of unwanted bulk email being filtered by the system.

Regarding claim 13, the combination shows the limitations of claim 12 as applied above, and further shows determining a delta between time stamps (see SpamAssassin, DATE_IN_PAST_ rules, p. 5).

Regarding claim 14, the combination shows the limitations of claim 13 as applied above, and further shows wherein the delta is between a first (e.g., a Date: timestamp) and a last timestamp (e.g., a Received: timestamp).

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Regarding claim 16, the combination shows the limitations of claim 1 as applied above, and further shows the filter being a spam filter (see Kirsch, [0017]-[0018]).

Regarding claim 18, the combination shows the limitations of claim 1 as applied above, and further shows a machine learning system component that employs at least a subset of extracted features to learn at least one of spam and non-spam (see Kirsch, [0008] and [00020]).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirsch (US Pub. No. 2005/0102366) in view of SpamAssassin (“SpamAssassin – Tests Performed”), and further in view of Freed (RFC 2046) and Horvitz (US Patent No. 6,161,130).

Regarding claim 3, the combination shows the limitations of claim 2 as applied above, but does not explicitly show the characters comprise letters, numbers, or punctuation.

Horvitz shows examining consecutiveness of punctuation (e.g., repeated exclamation marks: see col. 9, lines 18-22 and 44-51).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Kirsch in view of SpamAssassin and Freed with the examination of punctuation taught by Horvitz in order to increase the likelihood of unwanted messages being blocked by the system.

Claims 5, 42, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirsch (US Pub. No. 2005/0102366) in view of SpamAssassin (“SpamAssassin – Tests

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Performed”), and further in view of Freed (RFC 2046) and Wilson (US Pub. No. 2004/0015554).

Regarding claim 5, the combination of Kirsch, SpamAssassin, and Freed does not explicitly show the analysis component determines distance between at least one alpha-numeric character and a blob comprising a random sequence of characters, numbers, punctuation, or a combination thereof.

Wilson shows identifying a distance between at least one alpha-numeric character and a blob comprising a random sequence of characters, numbers, punctuation, or a combination thereof (see [0064]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Kirsch in view of SpamAssassin and Freed with the blob detection of Wilson in order to further improve the likelihood of unwanted bulk email being filtered by the system.

Regarding claim 42, Kirsch shows a method for evaluating spam as a function of message content, comprising:

- employing a processor executing computer readable instructions stored on a computer readable storage medium (see [0017]-[0018]) to implement the following:
 - parsing a message to extract a set of features associated with a part, content, or content type of the message (see [0021]);

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- examining the extracted set of features to identify a frequency of consecutiveness of repeating characters within a subject line of the message to classify the message as spam or not spam (e.g., a frequency of two or not two: see [0021]); and
- processing the message as a function of the classification (see [0033]).

Kirsch does not explicitly show:

- a content-type being case-sensitive;
- establishing ranges of consecutive, repeating characters, the ranges correspond to various degrees of spaminess, wherein each range comprises a number range of frequencies of the consecutive, repeating characters within the subject line of the message; and
- employing the ranges to sort the message by the frequency of consecutive repeating characters within the subject line of the message.

SpamAssassin shows:

- a content-type being case sensitive (see p. 7, describing a rule which assigns a spam score when the “Content type is ‘TEXT/HTML’ in all caps”);
- establishing ranges of character frequencies, the ranges correspond to various degrees of spamminess, wherein each range comprises a number range of frequencies of the characters (see rules spanning pp. 9-10, describing ranges of frequency of HTML-encoded characters, each with different spam weights); and

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- employing the ranges to sort a message by the frequency of the characters
(comprising employing the rules to classify the message as spam or not spam (see p. 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Kirsch with the case-sensitive content-type header analysis and ranges taught by SpamAssassin in order to improve the likelihood of unwanted bulk email being filtered by the system.

The combination of Kirsch in view of SpamAssassin does not *explicitly* show that the content type describes a type of data contained within a body of the message, the content type comprising a primary content-type, a secondary content-type, or a combination thereof.

Freed shows a content-type describing a type of data contained within a body of the message comprising a primary content-type, a secondary content-type, or a combination thereof (see discussion at pp. 3-4 as printed regarding a "Top-Level Media Type," and discussion at p. 15 as printed regarding "Composite Media Type Values").

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Kirsch in view of SpamAssassin with the content-type functionality taught by Freed in order to allow the system to examine messages intended for MIME-compatible email clients.

The combination of Kirsch, SpamAssassin, and Freed does not explicitly show identifying a distance of white-space characters between at least one alpha-numeric character and a blob comprising a random sequence of characters, numbers, punctuation, or a combination thereof.

Wilson shows identifying a distance of white-space characters between at least one alpha-numeric character and a blob comprising a random sequence of characters, numbers, punctuation, or a combination thereof (see [0064]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Kirsch in view of SpamAssassin and Freed with the blob detection of Wilson in order to further improve the likelihood of unwanted bulk email being filtered by the system.

Regarding claim 43, the combination shows the limitations of claim 42 as applied above, and further shows examining the consecutiveness of repeating characters comprises determining a frequency of the consecutiveness of repeating characters, wherein the characters comprise white space (see Kirsch, [0021]).

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirsch (US Pub. No. 2005/0102366) in view of SpamAssassin (“SpamAssassin – Tests Performed”), and further in view of Freed (RFC 2046) and Schipp (WO 02/071286, a copy of which is provided herewith).

Regarding claim 9, the combination shows the limitations of claim 1 as applied above, but does not explicitly show the analysis component compares the content type of a current message to stored content types of a plurality of other messages to facilitate determining whether the message is spam.

Schipp shows comparing a message header of a current message to stored message headers of a plurality of other messages to facilitate determining whether a message is spam (see p. 9, lines 10-14 and 28-29).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Kirsch in view of SpamAssassin and Freed with the teachings of Schipp in order to allow the system to subject messages with similar spam characteristics to further scrutiny (see Schipp, p. 9, lines 14-16).

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirsch (US Pub. No. 2005/0102366) in view of SpamAssassin (“SpamAssassin – Tests Performed”), and further in view of Freed (RFC 2046) and Rothwell (US Pat. No. 7,016,939).

Regarding claim 15, the combination shows the limitations of claim 1 as applied above, and further shows analyzing the subject line (see Kirsch, [0021]), but does not explicitly show the analysis component determines at least one of a percentage of white space to non-white space in the subject line of the message and a percentage of non-white space and non-numeric characters that are not letters in the subject line of the message.

Rothwell shows determining a percentage of non-white space and non-numeric characters that are not letters (e.g., punctuation: see col. 5, lines 10-16 and 36-43, showing identifying 23% of punctuation, as a spam indication).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Kirsch in view of SpamAssassin and Freed with the percentage

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determination of Rothwell in order to further improve the likelihood of unwanted bulk email being filtered by the system.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirsch (US Pub. No. 2005/0102366) in view of SpamAssassin (“SpamAssassin – Tests Performed”), and further in view of Freed (RFC 2046) and Aronson (US Pat. No. 7,882,193).

Regarding claim 17, the combination shows the limitations of claim 1 as applied above, but does not explicitly show the filter being a parental control filter.

Aronsson shows using anti-spam functionality in a parental control filter (see col. 10, lines 38-54).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Kirsch in view of SpamAssassin and Freed with the parental control filter of Aronson in order to allow parents to limit access to potentially inappropriate messages.

Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirsch (US Pub. No. 2005/0102366) in view of SpamAssassin (“SpamAssassin – Tests Performed”), and further in view of Freed (RFC 2046), Wilson (US Pub. No. 2004/0015554), and Schipp (WO 02/071286, a copy of which is provided herewith).

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Regarding claim 46, the combination shows the limitations of claim 42 as applied above, but does not explicitly comparing the set of features of the message to stored content types of a plurality of other messages to determine whether the message is spam.

Schipp shows comparing the set of features of a message to stored headers of a plurality of other messages to determine whether the message is spam (see p. 9, lines 10-14 and 28-29).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Kirsch in view of SpamAssassin and Freed with the teachings of Schipp in order to allow the system to subject messages with similar spam characteristics to further scrutiny (see Schipp, p. 9, lines 14-16).

Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirsch (US Pub. No. 2005/0102366) in view of SpamAssassin (“SpamAssassin – Tests Performed”), and further in view of Freed (RFC 2046), Wilson (US Pub. No. 2004/0015554), and Rothwell (US Patent No. 7,016,939).

Regarding claim 47, Kirsch shows one or more computer-readable media having computer-executable instructions embodied thereon that, when executed, perform a method for facilitating extracting data in connection with spam processing (see [0017]-[0018]), comprising:

- receiving a message (see [0020]);
- extracting a set of features associated with some part, content, or content type of the message (see [0021]);

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- examining consecutiveness of characters within a subject line of the message (see [0021]); and
- examining attributes of the message for spam in connection with building a filter (see [0021]-[0022]).

Kirsch does not show:

- determining a particular portion of a body of the message to analyze;
- examining a content-type of the message, the content-type being case sensitive to capture a variation of a primary content-type, a secondary content type, or a combination thereof;
- determining an amount of white space in the message;
- calculating a delivery time for the message using a first timestamp associated with origination of the message and a second timestamp associated with receipt of the message; and
- categorizing the delivery time into one of a plurality of ranged comprising a range of amounts of time for delivering messages, the ranges corresponding to various degrees of spaminess.

SpamAssassin shows:

- determining a particular portion of a body of the message to analyze (e.g., a link within the body, to determine whether it includes removal text: see first “rawbody” rule on p. 15);
- examining a content-type of the message, the content-type being case sensitive to capture a variation of a primary content-type, a secondary content type, or a

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combination thereof (see p. 7, describing a rule which assigns a spam score when the “Content type is ‘TEXT/HTML’ in all caps”);

- determining an amount of white space in the message (see first rule on p. 5, describing determining whether the subject has “lots of white space”);
- calculating a delivery time for the message using a first timestamp associated with origination of the message and a second timestamp associated with receipt of the message (comprising a difference between a Date: header and a Received: header: see DATE_IN_PAST_ rules on p. 5); and
- categorizing the delivery time into one of a plurality of ranges comprising a range of amounts of time for delivering messages, the ranges corresponding to various degrees of spaminess (e.g., ranges of 3-6 hours, 6-12 hours, etc., each corresponding to a rule having a spam weighting: see p. 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Kirsch with the analyses taught by SpamAssassin in order to improve the likelihood of unwanted bulk email being filtered by the system.

The combination of Kirsch in view of SpamAssassin does not *explicitly* show that the content type describes a type of data contained within a body of the message, the content type comprising a primary content-type, a secondary content-type, or a combination thereof, the primary content-type and the secondary-content type comprising at least one of a text, a multipart, a message, an image, an audio, a video, or an application.

Freed shows a content-type describing a type of data contained within a body of the message, each of the primary content-type and the secondary content-type comprising one of a

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text, a multipart, a message, an image, an audio, a video, or an application (see discussion at pp. 3-4 as printed regarding a "Top-Level Media Type," and discussion at p. 15 as printed regarding "Composite Media Type Values").

It would have been obvious to one of ordinary skill in the art at the type of the invention to modify the system of Kirsch in view of SpamAssassin with the content-type functionality taught by Freed in order to allow the system to examine messages intended for MIME-compatible email clients.

The combination of Kirsch, SpamAssassin, and Freed does not explicitly show identifying a distance of white-space characters between at least one alpha-numeric character and a blob comprising a random sequence of characters, numbers, punctuation, or a combination thereof.

Wilson shows identifying a distance of white-space characters between at least one alpha-numeric character and a blob comprising a random sequence of characters, numbers, punctuation, or a combination thereof (see [0064]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Kirsch in view of SpamAssassin and Freed with the blob detection of Wilson in order to further improve the likelihood of unwanted bulk email being filtered by the system.

The combination of Kirsch, SpamAssassin, Freed, and Wilson does not explicitly show:

- identifying a *percentage* of white space to non-white space; and
- identifying a percentage of non-white space and nonnumeric characters that are not letters in the message.

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Rothwell shows:

- identifying a percentage of spam-indicating characters to non-spam-indicating characters (see col. 5, lines 10-16 and 36-43, showing identifying 3.3% of words as capitalized, as a spam indication); and
- identifying a percentage of non-white space and nonnumeric characters that are not letters in the message (e.g., punctuation: see col. 5, lines 10-16 and 36-43, showing identifying 23% of punctuation, as a spam indication).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Kirsch in view of SpamAssassin, Freed, and Wilson percentage determination of Rothwell in order to further improve the likelihood of unwanted bulk email being filtered by the system.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER BIAGINI whose telephone number is (571)272-9743. The examiner can normally be reached on weekdays from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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